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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,865	10/17/2003	Arthur Prochazka	LAMA121862	9444

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CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC
1420 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98101-2347

EXAMINER	
HARTMAN JR, RONALD D	

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/688,865	PROCHAZKA, ARTHUR	
	Examiner	Art Unit	
	Ronald D Hartman Jr.	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-33,35/33, 38, 41-43,46-55, 57/55, 60, 63-65 and 68* is/are rejected.

7)☒ Claim(s) *34, 35/34, 36-37, 39-40,44-45, 56, 57/56, 58-59, 61-62, 66-67* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/02/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-24 were canceled and claims 25-68 are newly presented.

Claim Objections

2. Claim 27-28, 46 and 48-49 once again recite "bony mastoid process" and the examiner does not feel that describing the location of a sensor to be located over a process, per se, is an acceptable way of describing a location or the placement of an object. Suffice to say, describing the sensor being located over a bony mastoid is appropriate, but not over a process, and therefore appropriate changes are required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 56 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 56 recites the limitation "the encapsulation" in line 3. There is insufficient antecedent basis for this limitation in the claim. This feature has been interpreted to mean an "encapsulation under the skin".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 25-32 and 46-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshizawa et al., U.S. Patent No. 4,392,244.

As per claims 25 and 46, Yoshizawa et al. teaches a system and method for assisting a person in controlling one or more devices or processes, the system and method comprising:

- attaching a vibration sensor, capable of detecting mechanical vibrations, on the person's head (e.g. Figure 8 element 1A; vibration pick-up type microphone);
- detecting using the sensor, mechanical vibrations elicited by sudden contact of the person's upper teeth and lower teeth (e.g. C4 L13-17 and C4 L45-49 and C5 L53-61);
- generating an electrical signal from the sensed mechanical vibrations (e.g. interpreted to correspond to the disclosed "control signals"; C4 L13-17 and C4 L45-49); and
- transmitting the electrical signal to the one or more devices or processes to be controlled (e.g. Figures 6-7 and the device being worn by the user as depicted by Figures 8 and 10).

As per claims 26 and 47, Yoshizawa et al. teaches the sensor (e.g. vibration pick-up type microphone) being attached on a side of the person's head (e.g. Figure 10 element 15).

As per claims 27-29 and 48-50, a feature wherein the sensor is located over a joint of the jaw is inherent to the graphical depiction represented by Figure 10 since Yoshizawa et al. clearly contemplates bone conducted signals which are transmitted to mastoid cells, and therefore this feature in conjunction with the person depicted in

Figure 10, in which the microphone is clearly located in the jaw region, otherwise known as the temporomandibular region, is inherent to the disclosure of Yoshizawa et al.

As per claims 30 and 51, Yoshizawa et al. teaches the sensor being a microphone (e.g. Figure 8 element 1A; vibration pick-up type microphone; C4 L60-64).

As per claims 31-32 and 52-53, the applicant has readily admitted that the term "vibration pick-up type microphone" is known in the art as also being representative of an accelerometer (See remarks, specifically page 30), and therefore the use of an accelerometer is contemplated by Yoshizawa et al. disclosure of a vibration pick-up type microphone.

As per claim 54, Yoshizawa et al teaches a means by which the electrical signal is transmitted to the one or more devices (e.g. Figure 8 element 16 or Figure 10 element 1f).

Claims 25 and 46 are also rejected under 35 U.S.C. 102(b) as being anticipated by Savoy et al., U.S. Patent No. 5,341,133.

As per claims 25 and 46, all of the features and or limitations are believed to be adequately contemplated by a system which utilizes the clicking of a person's teeth for controlling a device and this system is clearly disclosed by Savoy et al., specifically C13 L22-37, in which Savoy et al. discloses clicking upper and lower teeth together so as to produce a signal which may used to substitute for touching a key or pressing a mouse switch. This system allows a person that cannot use their hands the ability to input information into a computer without using their hands by using the movements of the mouth, specifically by clicking their upper and lower teeth together.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 33, 35/33, 38, 41-43, 55, 57/55, 60, 63-65 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizawa et al., U.S. Patent No. 4,392,244.

As per claims 33 and 55, Official Notice is taken with respect to the use of adhesives for placing and securing sensors on a human being, as they were well known within at least the medical field at the time the invention was made. Also, the use of a spring-loaded headpiece would be another obvious viable option for securing the sensor to the user as this methodology closely parallels that which is graphically depicted by Figure 10 element 15 in which an ear-type fastener is disclosed, the ear fastener would obviously benefit from a spring-loaded feature as it would provide the ear fastener with the ability to fit many different sizes of a human head by allowing for the sensor to essentially clamp onto the user using the spring-loaded feature, and this would have been obvious to one of ordinary skill in the art at the time the invention was made for the purpose of, as already mentioned, allowing the sensor a simple yet effective way of securing the sensor to a person's head, regardless of the size or shape of the user's head.

As per claim 35/33 and 57/55, Yoshizawa et al teaches the electrical signal transmitted to a controller (e.g. Figure 6 element C) adapted to produce an output signal to control the one or more devices (e.g. corresponds to the ability to turn the device ON and OFF; C3 L51-60).

As per claims 38 and 60, Yoshizawa et al. teaches controlling an electronic device (e.g. Figure 8 and Figure 10, the device being worn by the user).

As per claims 41 and 63, Yoshizawa et al. teaches the use of amplifiers (e.g. C3 L65-C4 L10).

As per claims 42 and 64, Yoshizawa et al. teaches the use of high, low and band pass filtering (e.g. C4 L13-33).

As per claims 43 and 65, a logic circuit is inherent to the circuitry described by Yoshizawa et al since there must be logic to discern when a switch is made from ON to OFF.

As per claim 68, Yoshizawa et al. teaches a wired or wireless transmission means (e.g. C1 L43-62).

Allowable Subject Matter

7. Claims 34, 35/34, 56 and 57/56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 34, 35/34, 56 and 57/56, specifically claims 34 and 56, the prior art of record fails to teach an encapsulation under the skin for the sensor, in combination with the other claimed features as claimed.

Claims 36-37 and 58-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 36-37 and 58-59, the prior art of record fails to teach the use of the mouth input means for controlling a body part (claim 36), nor for stimulating muscles or nerves, in combination with the other claimed features as claimed.

Claims 39 and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 39 and 61, the prior art of record fails to teach the device being controlled being a cuff equipped with electrodes that stimulate muscles in the person's forearm, in combination with the other claimed features and or limitations as claimed.

Claims 40 and 62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 40 and 62, the prior art of record fails to teach the controller discriminating between a temporal pattern from the electrical signal and generating a corresponding output signal to control the one or more device or processes, in combination with the other claimed features and or limitations as claimed.

Claims 44-45 and 66-67 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 44-45 and 66-67, specifically claims 44 and 66, the prior art of record fails to teach trains of impulses operative to stimulate muscles or nerves, in combination with the other claimed features and or limitations as claimed.

Response to Arguments

8. The applicant has presented several arguments with respect to the applied prior art as well as several arguments with respect to MPEP practice and procedure, and these arguments will be individually addressed below.

The applicant has argued that Yoshizawa et al. does not adequately describe or disclose the claimed invention. The examiner respectfully disagrees and the applicants own arguments are used to support the notion that the teachings of Yoshizawa et al. do

in fact contemplate the invention claimed by at least pending and newly filed claims 25 and 46. The applicant has made mention several times in his remarks that the basic concept of the claimed invention is that "tooth clicks" are used for "controlling a device". The examiner is unsure as to how this system differs from that of Yoshizawa et al. when clearly the applicant has admitted on the record that Yoshizawa et al. uses tooth clicks to form a control signal for controlling an electronic device, in other words, for performing a switching operation on an electronic device (See Remarks; pages 26-27).

The applicant's arguments with respect to the supposed deficiencies based on the applicant's interpretation of Nemiroski are rendered moot in view of the new grounds of rejections set forth above in this office action, the new grounds of rejections being necessitated by the applicant's amendments to the claims.

With respect to the applicant's arguments that the instant invention is for use by disabled persons (emphasis added) and that the cited prior art does not contemplate this specific use. However, upon closer inspection, the examiner notes that there does not appear to be any claim language related to this fact in any of the claims and therefore the applicant is not arguing features of the claims, but rather, is arguing features of the claims in light of the specification which is not proper practice, and therefore a response to this argument is not warranted at this time.

With respect to the applicant's argument that patents issued with different U.S. classifications may not be combined as they are non-analogous by nature, the examiner respectfully disagrees. The fact that references are classified in different areas does not determine whether inventions are analogous or not. USPTO classification is based upon an examiner's *opinion* (emphasis added) as to the claimed subject matter and cannot be used as a basis for holding that two references are analogous. Therefore, by the same rational, classification cannot be determinative of whether references are non-analogous. The test for non-analogous art is set forth in In re Oetiker, 24 USPQ 2d 1443 (Fed Cir 1992). In the instant case, even if both references (Nemiroski in view of

Yoshizawa) are not considered to be from the same filed of endeavor; both inventions are solving the same problem and thus are each reasonably pertinent to applicant's problem which is controlling an electronic device without using a user's hands.

With regards to the applicants assertion that electronic filtering and a logic circuit are both important in detecting small tooth clicks reliably in the presence of vibrations unrelated to tooth clicks, the applicant appears to be arguing features which are not present in the claims, and therefore a response is not warranted at this time.

The applicant then goes on to argue that Yoshizawa does not teach a vibration sensor located under the skin over the person's temporomandibular joint as recited in claims 25 and 46, however these features are not necessitated by the claims are currently presented since they may or may not be present as dictated by the current pending claim language. Therefore, a plausible interpretation of claims 25 and 46 would provide a system whereby a sensor is simply located on a user's head, a feature which is clearly anticipated by Yoshizawa, and this valid interpretation renders this argument moot since the claim does not require the sensor to be located under the skin.

The applicant then goes on to argue that Yoshizawa further does not teach attaching a vibration sensor on the side of a person's head at a location to sense mechanical vibrations of the person's temporomandibular joint. The examiner respectfully disagrees since this is precisely what is contemplated by Yoshizawa by allowing teeth clicking to control the electronic device.

The applicant's arguments with respect to "mastoid cells" is not appropriate since these features do not appear within the claims, and therefore a response is not warranted at this time.

In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that

the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977). See MPEP 2145.

The applicant's arguments with respect to the supposed deficiencies based on the applicant's interpretation of Simmons and Petrofsky are rendered moot in view of the new grounds of rejections set forth above in this office action, the new grounds of rejections being necessitated by the applicant's amendments to the claims.

It is believed that the examiner has properly responded to each argument, or at the least, has provided a reasonable explanation with respect to the numerous arguments presented.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is (571) 272-3684. The examiner can normally be reached on Mon. - Fri., 10:00 am - 7:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.
Patent Examiner
Art Unit 2121
X RDH

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Anthony Knight
Supervisory Patent Examiner
Group 3600